

Amendments to the Claims:

This claim listing will replace all prior versions and listings of claims in the application.

Claim Listing:

1-11. (Cancelled)

12. (Currently amended) An immunostimulatory oligonucleotide compound comprising a sequence of formula (III):

5'-Um.....U1-X1-X2-Y-Z-X3-X4-D1.....Dm-3' (III)

wherein:

Y is a non-natural pyrimidine nucleoside;

Z is guanosine, 2'-deoxy-guanosine or a non-natural purine nucleoside;

each X independently is independently selected from the group consisting of a naturally occurring nucleoside, C3-alkyl linker, 2-aminobutyl-1,3-propanediol linker, β -L-deoxynucleoside, 1',2'-dideoxyribose, C3-linker, Spacer 18, 3'-deoxynucleoside, 2'-O-propargyl-ribonucleoside, Spacer 9 and 2'-5' linkage or an immunostimulatory moiety;

wherein *Um*-U1 represents an upstream potentiation domain, where each U independently is a naturally occurring nucleoside or an immunostimulatory moiety;

wherein D1-D_m represents a downstream potentiation domain, where each D independently is a naturally occurring nucleoside or an immunostimulatory moiety; and m, at each occurrence, represents a number from 0 to 30; and

wherein at least one X, U, or D the immunostimulatory moiety is selected from the group consisting of C3-alkyl linker, 2-aminobutyl-1,3-propanediol linker, β -L-deoxyribonucleoside, 1',2'-dideoxyribose, C3-linker, Spacer 18, 3'-deoxyribonucleoside, 2'-O-propargyl-ribonucleoside, Spacer 9 and 2'-5' linkage; and

wherein at least one X, U, or D is an immunostimulatory moiety.

13. (Canceled)

14. (Currently amended) An immunostimulatory oligonucleotide compound comprising a sequence of formula (III):

5'-Um.....U3-U2-U1-X1-X2-Y-Z-X3-X4-D1-D2-D3.....Dm-3' (III)

wherein:

Y is a non-natural pyrimidine nucleoside;

Z is guanosine, 2'-deoxy-guanosine or a non-natural purine nucleoside;

X1 is selected from the group consisting of a naturally occurring nucleoside, ~~or an immunostimulatory moiety selected from the group consisting of~~ C3-alkyl linker, 2-aminobutyl-1,3-propanediol linker, and β -L-deoxynucleoside;

X2 is a naturally occurring nucleoside or ~~an immunostimulatory moiety that is a~~ 2-aminobutyl-1,3-propanediol linker;

X3 is a naturally occurring nucleoside or ~~an immunostimulatory moiety that is a~~ nucleoside methylphosphonate;

X4 is a naturally occurring nucleoside or a nucleoside methylphosphonate;

U1 is selected from the group consisting of a naturally occurring nucleoside, ~~or an immunostimulatory moiety selected from the group consisting of~~ 1',2'-dideoxyribose, C3-linker, and 2'-O-methyl-ribonucleoside;

U2 is selected from the group consisting of a naturally occurring nucleoside, ~~or an immunostimulatory moiety selected from the group consisting of~~ 1',2'-dideoxyribose, C3-linker, Spacer 18, 3'-deoxynucleoside, nucleoside methylphosphonate, β -L-deoxynucleoside, and 2'-O-propargyl-ribonucleoside;

U3 is selected from the group consisting of a naturally occurring nucleoside, ~~or an immunostimulatory moiety selected from the group consisting of~~ 1',2'-dideoxyribose, C3-linker, Spacer 9, Spacer 18, nucleoside methylphosphonate, and 2'-5' linkage;

each U_m is independently selected from the group consisting of a naturally occurring nucleoside, C3-alkyl linker, 2-aminobutyl-1,3-propanediol linker, β -L-deoxynucleoside,

1',2'-dideoxyribose, C3-linker, Spacer 18, 3'-deoxynucleoside, 2'-O-propargyl-ribonucleoside, Spacer 9 and 2'-5' linkage; or an immunostimulatory moiety;

D1 is selected from the group consisting of a naturally occurring nucleoside, or an immunostimulatory moiety selected from the group consisting of 1',2'-dideoxyribose and nucleoside methylphosphonate;

D2 is selected from the group consisting of a naturally occurring nucleoside, or an immunostimulatory moiety selected from the group consisting of 1',2'-dideoxyribose, C3-linker, Spacer 9, Spacer 18, 2-aminobutyl-1,3-propanediol linker, nucleoside methylphosphonate, and β-L-deoxynucleoside;

D3 is selected from the group consisting of a naturally occurring nucleoside, or an immunostimulatory moiety selected from the group consisting of 3'-deoxynucleoside, 2'-O-propargyribonucleoside; and 2'-5' linkage; and

each D_m is independently selected from the group consisting of a naturally occurring nucleoside or an immunostimulatory moiety, C3-alkyl linker, 2-aminobutyl-1,3-propanediol linker, β-L-deoxynucleoside, 1',2'-dideoxyribose, C3-linker, Spacer 18, 3'-deoxynucleoside, 2'-O-propargyl-ribonucleoside, Spacer 9 and 2'-5' linkage;

provided that at least one of X1, X2, X3, X4, U1, U2, U3, D1, D2 or D3 is not a naturally occurring nucleoside an immunostimulatory moiety.

15. (Withdrawn, but currently amended) The immunostimulatory oligonucleotide compound of claim 12, wherein U2 and U3 are both the same immunostimulatory moiety and are selected from the group consisting of 1',2'-dideoxyribose, C3-linker, or and β-L-deoxynucleoside.
16. (Withdrawn, but currently amended) The immunostimulatory oligonucleotide compound of claim 12, wherein U3 and U4 are both the same immunostimulatory moiety and are selected from the group consisting of nucleoside methylphosphonate and 2'-O-methoxyethylribonucleoside.

17. (Withdrawn, but currently amended) The immunostimulatory oligonucleotide compound of claim 12, wherein U5 and U6 are both the same immunostimulatory moiety and are selected from the group consisting of 1',2'-dideoxyribose and C3-linker.
18. (Withdrawn) The immunostimulatory oligonucleotide compound of claim 12, wherein X1 and U3 are both 1',2'-dideoxyribose.
19. (Withdrawn, but currently amended) The immunostimulatory oligonucleotide compound of claim 12, wherein D2 and D3 are both the same immunostimulatory moiety and are selected from the group consisting of 1',2'-dideoxyribose and β -L-deoxynucleoside.

20-38. (Cancelled)

39. (Previously presented) The immunostimulatory oligonucleotide compound of claim 12, wherein Y is selected from 5-hydroxycytosine, 5-hydroxymethycytosine, N4-alkylcytosine and 4-thiouracil.
40. (Previously presented) The immunostimulatory oligonucleotide compound of claim 14, wherein Y is selected from 5-hydroxycytosine, 5-hydroxymethycytosine, N4-alkylcytosine and 4-thiouracil.